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| 09/964,537 | 09/28/2001 | Yeong Jong Shin | K-261 | 2652 |

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| EXAMINER |
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HYUN, SOON D

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| ART UNIT | PAPER NUMBER |
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2663

DATE MAILED: 06/14/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/964,537

Applicant(s)

SHIN, YEONG JONG

Examiner

Soon D. Hyun

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 September 2001.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-24 is/are rejected.
- 7) ☒ Claim(s) 25 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 September 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Drawings

1. The drawings are objected to because FIG. 1 has no indication for "pilot beacon 1" and 'pilot beacon 2" with reference to specification page 4, lines 7-14.

Specification

2. 35 U.S.C. 112, first paragraph, requires the specification to be written in "full, clear, concise, and exact terms." The specification is related with terms which are not clear, concise and exact. The specification should be revised carefully in order to comply with 35 U.S.C. 112, first paragraph. Examples of some unclear, inexact or verbose terms used in the specification are: a frequency pilot signal cell 'A' (page 3, line 19) and a frequency pilot signal cell 'B' (page 4, line 2) that are not clearly defined, therefore, it is not clear whether the frequency pilot signal cell 'A' and the frequency pilot signal cell 'B' refers to a pilot signal transmitted from the pilot beacon of cell A and a pilot signal transmitted from the pilot beacon of cell B, respectively.

Claim Objections

3. Claims 1, 13, 17, 21, 23 and 25 are objected to because of the following informalities.

In claim 1, line 11, "gateway" should be change to – second --.

In claim 13, line 3, "first" should be changed to – second --.

In claim 17, line 11, "stand" should be changed to – standards --.

Claims 21 and 25 are objected to because all instances of "configured to" in each claim should be deleted to make the claim positive. Language such as "adapted to/for", "configured to/for", or "arranged to/for" (or similar phrases such as "enabled to", "capable of", etc.) is not considered positive recitation per MPEP 2106.

In claim 23, line 4, "station" should be changed to – terminal – to avoid lack of antecedent basis..

Appropriate correction is required.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claim 17 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 17, line 11, the meaning of the term "regardless" is not clear, i.e., it is not clear what is meant by "manage handoff between the first mobile station system and the second mobile communication system regardless of communication standards of the first mobile communication system and the second mobile communication system."

Claim Rejections - 35 USC § 103

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6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jalloul (U.S. Patent No. 6,768,908) in view of Chheda et al (U.S. Patent No. 6,038,448).

Regarding claims 1, 2, and 6, Jalloul et al (Jalloul) discloses a method for performing handoff between different mobile communication networks (col. 1, lines 28-36) when a mobile station (104 in FIG. 1) moves between cells (101, 102, 103).

However, Jalloul does not explicitly teach in case that the mobile station initially communicating with a first cell 103 (providing services of IS-95B, col. 1, lines 50-52) moves to a second cell 102 (providing services of IS-95C, col. 1, lines 54-56) through a gateway cell 101 (having multiple sectors and providing services of IS-95B and IS-95C, col. 1, lines 34-37).

Chheda et al (Chheda) discloses a method of performing handoff when a mobile station moves a first cell (614) to a first sector (616 B) of a second cell (616) to a second sector (626 B) of the second cell and finally to a third cell (618) (FIG. 6, col. 11, lines 48-50) and the method comprises the steps of performing a first handoff from the first cell to the first sector of the second cell (col. 11, lines 63-65) when a pilot signal strength from the second cell exceeds a threshold value (col. 12, lines 9-14), performing an inter-sector handoff from the first sector of the second cell to the second sector of the second cell when a pilot signal strength of the first base station meets a drop threshold

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value (col. 8, lines 6-18), and performing a second handoff from the second sector of the second cell to the second cell when a pilot signal strength of the cell B exceeds a threshold value (col. 12, lines 9-14).

Those of skill in the art would have been motivated by Chheda to incorporate the method of handoff taught by Chheda into Jalloul when the mobile station (104) initially communicating with the first cell (103) moves to the gateway cell (101) and finally moves to the second cell 102.

It would have been obvious to one having ordinary skill in the art to incorporate the method of handoff taught by Chheda into Jalloul to maintain the communication.

Regarding claims 2, 4, and 9, Jalloul+ Chheda as discussed for claim 1 teaches that the inter-sector handoff is a soft handoff. Jalloul does not explicitly teach that some sectors of the cell 101 are IS-95B type of a first frequency and the other sectors of the cell 101 are IS-95C type of a second frequency. It would have been apparent to those of skill in the art to make sector allocations for Jalloul such that some sectors of the cell 101 are the IS-95B type and the other sectors of the cell 101 are the IS-95C type to make the method of handoff to be more simpler (col. 2, lines 25-30).

Therefore, it would have been obvious to one having ordinary skill in the art to incorporate a method of a hard handoff for inter-sector handoff.

Regarding claim 3 and 4, Jalloul+ Chheda as discussed for claim 1 teaches that the first and second handoffs are a soft handoff.

Regarding claim 5, Jalloul further discloses that a BSC (134 in FIG. 1) is a control station for the cell 101 and coupled to a first control station (BTS 135) of the first

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communication network and a second control station (BTS 136 of the second communication network).

Regarding claim 7, Jalloul further teaches that the IS-95B and IS-95C evolve to one generation to another and IS-95C is IS-2000 (3G), see col. 1, lines 15-21).

Regarding claims 8 and 10, refer to the discussion for claim 1. Jalloul +Chheda further teaches that an ADD and a drop handoff (Chheda col. 8, lines 6-18).

Regarding claims 11, 15, 19, 17, 19, and 21, refer to the discussion for claims 1, 4 and 9.

Regarding claims 12 and 14, further refer to the discussion for claim 10.

Regarding claim 13, refer to the discussion for claim 9.

Regarding claims 16 and 20, refer to the discussion for claim 7.

Regarding claim 18, refer to the discussion for claim 5.

Regarding claim 22, refer to the discussion for claim 4.

Regarding claims 23 and 24, refer to the discussion for claims 2-4.

Allowable Subject Matter

8. Claim 25 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter.


The prior art of record fails to teach that the gateway base station prevent a ping-pong effect during the handoff as recited in claim 24.

Conclusion

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Soon D. Hyun whose telephone number is 571-272-3121. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ricky Q. Ngo can be reached on 571-272-3139. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


S. Hyun
06/11/2005

ANDY LEE
PATENT EXAMINER
